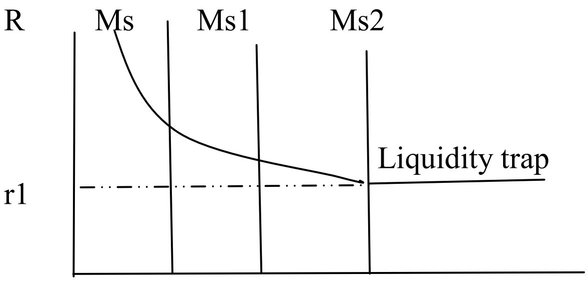
When the rate of interest falls much below the normal level, even the bulls turn bears. They too start believing that the interest rate would not go any further down as it has reached its 'critical' minimum level.Instead, they begin to expect that the interest rate would rise and, therefore, bond prices will go down causing a capital loss. Therefore, they too start selling their bonds and accumulating cash balance. It is a situation *when* everybody prefers idle cash balance to bond holding.

Under this condition, even if monetary authority increases money supply to lower the rate of interest, the entire extra money supply gets trapped in liquidity as extra idle cash balance. This is what Keynes called 'liquidity trap'.



In the liquidity trap, asset holders will absorb unlimited quantities of money into idle balances without using any of it to buy bonds.

Implications

1. Rate of interest will never be equal to zero.
2. The rate of interest cannot be pushed down below the level set by the liquidity trap.
3. If the economy is in the liquidity trap, monetary policy is ineffective. - increasing the money supply to drive the interest down to stimulate investment did not work -.
4. The policy of a general wage cut is ineffective in the liquidity trap.

Criticisms

1. Like the risky assets wealth holder also hold other riskless income yielding assets, -savings deposits, commercial papers, treasury bills etc. it is not considered by Keyns
2. The normal rate of interest acts as the benchmark with which any rate of interest is judged as high or low. Keynes never explained the factors that determine the normal rate of interest.
3. The same unit of money can perform different motives. So the demand for money cannot be compartmentalized.
4. Not supported by empirical evidence.
5. According to Gurley and Shaw liquidity is not the important factor in interest theory.
6. James Tobin has says that the theory has failed to analyze the role of wealth on demand for money.
7. Keynes denied the influence of real factors - saving and investment- in the determination of the rate of interest.
8. Keynes regarded the rate of interest as the reward for parting with liquidity and not a return for saving.

<table>
<tr><td>Based on full employment.</td><td>unemployment is the rule and full employment is only an exception.

So long as there is unemployment, employment and output will change in the same proportion as the quantity of money

When there is full employment prices will change in the same proportion as the quantity of money.

Keynesian analysis is superior to the classical analysis in the sense that it studies the relationship between the quantity of money and the prices both under full employment and unemployment.</td></tr>
<tr><td>Neglect the influence of rate of interest because of the direct relationship between the quantity of money and the price level.</td><td>Keynes analyzed the influence of rate of interest on the level of investment and thus on the volume of output and employment.</td></tr>
<tr><td>Monetary sector of the economy is not related to the real sector of the economy.</td><td>Keynes integrated the monetary sector and real sector of an economy through his theory of employment and output in which the rate of interest plays the crucial role.

Changes in the quantity of money affect the rate of interest and hence the level of investment, employment and output.</td></tr>
<tr><td colspan="2">Keynesian theory is an improvement over classical quantity theory because it provides a better guide to practical policies.

According to Keynes, expansion of money supply is not harmful to the economy so long as there is unemployment.

Expansion in the quantity of money leads to inflation only after full employment is reached.</td></tr>
</table>

rb= nominal interest rate on bonds

re = nominal return on equities

rd = nominal return on durable goods

W = ratio of nonhuman to human wealth

U = tastes and preferences.

The amount of money demanded depends on wealth, interest rate on bonds, the return on equities, the expected rate of inflation, the ratio of nonhuman to human wealth and the variables affecting the tastes and preferences of wealth holders.

If wealth increases, more money is demanded.

If the rate of interest on bonds rises or returns on equities increase, less money is demanded.

If the rate of inflation rises, the demand for money falls.

The ratio of nonhuman to human wealth and variables which affect tastes and preferences are assumed constant in the short run.

Criticisms

1. He underestimated the influence of the rate of interest on the demand for money.

2. He assumes that a rise in M results rise in the price level and fall in real income and thus leads to change in output and income. The critics point out that a rise in M causes low rate of interest and increases investment, output etc.

3. Friedman uses income in the sense of permanent income. The concept of permanent income cannot be measured accurately.

4. Friedman's concept of wealth is too broad and concepts like human capital are difficult to quantify.

It includes the currency notes and coins issued by the central bank of a country

Bank money

It is the demand deposit held by the public in commercial banks.

They are transferable by cheque.

Velocity of money

It refers to the average number of times a unit of money *changes hands or is transferred* from one person to another during a given period of time.

An increase in the velocity of money increases the supply of money.

Total supply of money over a period of time is equal to the total amount of money in circulation multiplied by its velocity of circulation.

DETERMINANTS OF MONEY SUPPLY

There are many determinants of money supply.

1.Cash Reserve Ratio (CRR) Cash reserve ratio is the percentage of the deposits of commercial banks statutorily kept with the central bank of a country.

An increase in the CRR will result in a reduction in the excess reserves of the commercial banks used for credit creation.

This will adversely affect the supply of money. Conversely, a reduction in the CRR will result in an increase in the excess reserves of commercial banks and hence an increase in the supply of money.

CRR-4%, SLR 20.5%, Bank rate 6.75

2. **Excess Reserves of Banks** Excess reserves are the difference between total reserves and required reserves.

Excess reserves are used for credit creation.

Higher the excess reserves, higher the supply of money and vice versa.

3. Public's Currency Holdings (Currency Deposit Ratio) Public's desire to hold currency relative to bank deposits.

The demand to hold bank deposits arises from their convenience and safety in transferring large sums of money.

If people hold more money in terms of bank deposits, bank reserves will increase, leading to an increase in money supply.

Conversely, if people exhibit a preference for currency, bank reserves will decrease, leading to a reduction in money supply.

4. Monetary Base. Monetary base refers to the supply of funds available for use either as cash or reserves of the central bank.

Monetary base changes due to the policy of the government and is also influenced by the value of money.